

# IDEXX Reference Laboratories

## North America Pathology Submission Guidelines



Test codes and fees are determined by the number and type of sites, lesions/masses, or tissue specimens submitted. Use the appropriate test code based on number of sites or tissue specimen type.

If the number of sites/lesions is not indicated, we will assume each specimen is from a different site and will charge separately.

Biopsy and cytology specimens submitted using an incorrect test code will be changed to the appropriate test code for the type of specimen and number of sites submitted.

**Note:** In the event a test code needs to be changed to reflect the specimen(s) submitted, this may result in a change in the cost.

### Clearly provide the following information with all submissions:

- + Signalment, breed, relevant history, clinical signs, physical examination findings, therapies instituted, and the anatomic site sampled
- + Gross lesion description: Size, shape, color, consistency, symmetry, location, and border definition (well-demarcated versus invasive)
- + Radiographic summary (images especially for bony lesions or oral masses)

- + Ultrasonographic summary (especially for specimens from internal organs)
- + Prior relevant laboratory results and/or trends, including accession numbers (e.g., prior cytology/biopsy, recent CBC, chemistry panel, other)
- + Any specific questions you would like answered and/or clinical differential diagnoses

**Note:** The minimum submission information required includes the patient data elements needed for the pathologist to consistently achieve the most accurate and timely pathologic interpretation possible. Omission of any potentially useful or relevant patient data elements that make up the minimum submission information required may result in less than accurate and timely pathologic interpretation.

## Cytology specimen types

Specimen type	Preparation	Submission information
All cytology specimens	<ul style="list-style-type: none"> <li>Slides should be air-dried. If using a fan select the cool setting only. This must be done carefully. Rapid air-drying of slides is essential to decrease artifacts.</li> <li>Do not use heat fixation or formalin. Avoid contact with oil. Keep specimens away from formalin fumes.</li> <li>Do not refrigerate unstained slides. Store specimens at room temperature.</li> <li>Submission of at least one unstained slide from each site is recommended.</li> <li>Prestaining a slide for quality screening prior to submission can be beneficial, especially if there is concern for inadequate specimen cellularity.</li> <li>Slides and tubes should be labeled with patient's first and last names, collection date, specimen ID, and submitting veterinarian's name.</li> </ul>	Prestaining a slide for quality screening prior to submission is recommended. Submit up to 4 slides per site unless otherwise indicated.
Fine-needle aspirates (FNAs) (e.g., skin, organs, solid or fluid-filled masses)	1–4 slides per site. Slides should have a well-preserved, even monolayer of cells. This is sufficient per body site.	Label slides by site.
Lymph nodes (single or multiple)	<ul style="list-style-type: none"> <li>3–10 (1–4 slides per lymph node); this ensures sufficient slide allowance for this specimen type.</li> <li>Slides should have a well-preserved, even monolayer of cells.</li> <li>Label all slides by lymph node.</li> </ul>	Lymph node test charges include a maximum of 10 slides per test. Slides can be sampled from all lymph nodes that are relevant to the case.
Fluids (e.g., body cavities, joints, CSF); semen specimens; urine specimens	<ul style="list-style-type: none"> <li>Fluid in a lavender-top tube (LTT; EDTA), 1–4 slides.</li> <li>Semen in a plain plastic tube without additive.</li> <li>1–4 air-dried, unstained slides of sterile urine sediment, without coverslips. Also include urine specimen in an appropriate container.</li> </ul> <p><i>For specimen volumes, refer to the Online Test Directory.</i></p>	<ul style="list-style-type: none"> <li>Fluid: Includes fluid analysis and pathologist evaluation. Charged per site.</li> <li>Semen: Includes sperm count and pathologist evaluation.</li> <li>Urine: Submission of unstained slides prepared in-clinic is recommended to preserve cell morphology.</li> </ul>
Bone marrow (BM) aspirate	4–6 slides, extra fluid in a lavender-top tube (LTT; EDTA). Slides should ideally have several bone marrow particles distributed within a well-preserved, even monolayer of cells.	A concurrent CBC submission or CBC results (within 48 hours of marrow collection) is required for complete interpretation and clinical commentary.
Fecal cytology	1–4 slides with thin film of air-dried fecal material.	Do not submit fecal swabs or fresh feces.
Hair/fur/skin cytology	1–4 slides with a uniform thin layer of cellular material.	Provide stained slides. Do not submit specimens in a tube. Submission of tape preps is not recommended.

**Note:** Submissions with more than 4 slides per site may result in additional charges and a longer turnaround time unless otherwise specified.

### Preparing cytology slides:

Make slides using either a squash technique or a blood smear technique. Stain one slide to ensure adequate cellularity and quality.

### The following handling conditions may result in nondiagnostic slides:

- Material being expelled onto slides but not smeared.
- Excessive pressure being applied when smearing material.
- Material being too dense or thick.
- Contamination of cytology slides with formalin from biopsy specimens.

IDEXX offers comprehensive training resources at [idexx.com/pathology](https://idexx.com/pathology) (U.S.) or [idexx.ca/pathology](https://idexx.ca/pathology) (Canada) to support you in confidently preparing and selecting 1–4 quality cytology slides per site for clinical pathologist evaluation.

For information on IDEXX Digital Cytology, go to [idexx.com/digitalcyto](https://idexx.com/digitalcyto) (U.S.) or [idexx.ca/digitalcyto](https://idexx.ca/digitalcyto) (Canada).

## Biopsy specimen types

Specimen type	Submission information
All biopsy specimens	<p>Learn more about shipping and packaging requirements for biopsy specimens at <a href="https://go.idexx.com/submitbiopsy">go.idexx.com/submitbiopsy</a> (U.S. and Canada).</p> <p>Quick tips:</p> <ul style="list-style-type: none"> <li>• Use new jars, 1 jar per site, and label with the patient's first and last names, collection date, specimen ID, and submitting veterinarian's name.</li> <li>• 10:1 formalin to tissue ratio. Completely cover the mass. Microcassettes are available for small specimens.</li> <li>• Ensure jars are labeled with "10% buffered formalin" or "saline" if using non-IDEXX issued jars.</li> <li>• Submit using standard shipping or courier service process.</li> </ul>
Multiple needle/punch/endoscopic wedge; incisional specimens from the same site	Charged per site including multifocal to diffuse non-single mass dermatologic conditions (1–5 punches for 1 site, 6–10 for 2 sites).
Individually labeled lymph nodes	Charged as separate sites and interpreted individually.
Multiple lymph nodes submitted in the same biopsy jar	Charged as one site and interpreted as a whole.
Multiple mass lesions	Charged as separate sites.
Complex biopsy specimens: Evaluation of organs, including spleen, liver and lung lobectomy; mammary chain (3 or more mammae) or at least 3 mass lesions; amputated digits (with or without bone), limbs or jaw; eye, reproductive organs.	<p>The Complex Biopsy test code is required for qualifying complex specimen types.</p> <p><i>For more detailed Complex Biopsy submission information and requirements, visit <a href="https://idexx.com/7217">idexx.com/7217</a> (U.S.) or <a href="https://ca.idexx.com/complexbiopsy">ca.idexx.com/complexbiopsy</a> (Canada).</i></p>
Skin biopsies	<ul style="list-style-type: none"> <li>• Use a 6 mm punch biopsy, reserving 4 mm for difficult to biopsy areas (periocular, pinna, nasal planum, footpad). Local anesthesia does not interfere with histologic interpretation.</li> <li>• Submission of multiple punch biopsies is encouraged. Up to 5 punch biopsies of inflammatory skin lesions may be submitted for a "single site" charge.</li> <li>• Center the lesion within the punch biopsy tool; rotate the punch in one direction to minimize shearing forces.</li> <li>• For depigmenting diseases (such as discoid lupus), try to biopsy the early areas of depigmentation (the slate grey area of the nasal planum over the ulcerated area).</li> <li>• For ulcers, biopsy the advancing edge to include some of the epidermis instead of the center of the ulcer.</li> <li>• For diseases characterized by alopecia, biopsy the greatest area of alopecia (not half alopecia/half haired).</li> <li>• If possible, consider discontinuing glucocorticoid therapy 2–3 weeks prior to biopsy.</li> </ul>
Dermatopathology biopsy specimens: For skin lesions from chronic/recurring conditions that fail to respond to therapy; clinically unusual lesions; acute onset skin conditions that are progressing rapidly or clinically severe; conditions presenting with multifocal nodules	<p>Assigned to the IDEXX Dermatopathology Team for case reading; test code 8934 (U.S.) or DERMBX (Canada).</p> <p><i>For detailed submission information, visit <a href="https://idexx.com/dermbiopsy">idexx.com/dermbiopsy</a> (U.S./Canada).</i></p>

## Biopsy specimen types (cont)

Specimen type	Submission information
Liver biopsy specimens with staining panel services	<p>Includes the following special stains that are processed concurrently with your liver biopsy submission:</p> <ul style="list-style-type: none"><li>• Rhodanine or rubeanic acid for copper</li><li>• Trichrome for fibrosis</li><li>• Prussian blue for iron</li><li>• Reticulin for hepatic architecture</li></ul> <p>For detailed submission information, visit <a href="https://idexx.com/liverbiopsy">idexx.com/liverbiopsy</a> (U.S./Canada).</p>
Multiple specimens obtained postmortem	<p>The Necropsy, Multiple Tissue Specimens test code is used for multiple tissues obtained postmortem.</p> <p><b>Note:</b> IDEXX Reference Laboratories does not perform whole-body necropsies.</p>
Multiple jars, same patient	<p>Ensure specimens for the same patient are processed together by putting them in the same bag. Use a larger resealable bag or wrap multiple bags together with elastic bands.</p>
Small specimens	<p>Submit small specimens (free-floating or in tissue microcassette[s]) in a separate jar from larger specimens. Do not wrap small fragments or place on tongue depressors. Do not cut specimen edges if margin evaluation is important.</p>
Large tissues too big to fit in IDEXX-provided formalin jars	<ul style="list-style-type: none"><li>• Wrap in saline-wetted gauze (not soaked; do not use paper towels); place in IDEXX-provided large biopsy sample submission kits.</li><li>• Alternatively, triple bag the specimen in 1- to 5-gallon freezer bags or 10-gallon biohazard bags. Place adsorbents and cold packs inside the middle layer. Store in the refrigerator (not freezer) until pickup. Please anticipate a longer turnaround time for large specimens.</li></ul>

### Notes:

- While awaiting submission pickup, biopsy specimens in formalin should be stored at room temperature and fresh biopsy specimens should be refrigerated. Do NOT freeze specimens.
- Margins are evaluated and measured for all mass lesions, as applicable, free of charge.
- If the number of sites/lesions is not indicated, we will assume each specimen is from a different site and will charge separately.

**Supplies:** Microcassettes, biopsy jars, large biopsy sample submission kits, and other supplies can be ordered free of charge through IDEXX Online Orders.

**To learn more about IDEXX pathology, test codes, submission requirements, turnaround times, and fees,** visit [vetconnectplus.com](https://vetconnectplus.com) (U.S.), [vetconnectplus.ca](https://vetconnectplus.ca) (Canada), [idexx.com/pathology](https://idexx.com/pathology) (U.S.), and [idexx.ca/pathology](https://idexx.ca/pathology) (Canada).